

CLAIMS

1. A method for treating an ophthalmic lens comprising two main sides, wherein at least one side comprises an organic or mineral external layer coated with a MgF_2 temporary protective layer, characterized in that the method comprises a specific treating step selected amongst the following steps:
- a liquid phase chemical treatment of the temporary protective layer, leading to the formation of MgO and/or Mg(OH)_2 in and/or on the temporary protective layer,
 - a deposit of at least one non fluorinated metallic oxide and/or of at least one non fluorinated metallic hydroxide on the temporary protective layer through transfer thereof from an electrostatic film or through vacuum evaporation thereof directly on the temporary protective layer,
 - the deposit of the MgF_2 temporary protective layer on the external layer is performed through vacuum evaporation at a speed lower than 0.5 nm/s, preferably lower than or equal to 0.3 nm/s.
2. A method according to claim 1, characterized in that the external layer is a hydrophobic and/or oilphobic surface coating.
3. A method according to any one of preceding claims, characterized in that the external layer has a thickness lower than 30 nm, preferably ranging from 1 to 20 nm, more preferably from 1 to 10 nm.
4. A method according to any one of preceding claims, characterized in that the external layer is deposited on a non reflecting coating.
5. A method according to claim 4, characterized in that the non reflecting coating is multi-layered.
6. A method according to any one of preceding claims, characterized in that the temporary protective layer has a thickness ranging from 5 to 50 nm.
7. A method according to any one of claims 1 to 6, characterized in that the liquid phase chemical treatment comprises a step of contacting the MgF_2 temporary protective layer with non deionised and

non distilled water at a temperature ranging from 30 to 50°C, preferably from 30 to 40°C.

8. A method according to any one of claims 1 to 6, characterized in that the liquid phase chemical treatment comprises a step of contacting the MgF_2 temporary protective layer with a soda aqueous solution.

9. A method according to any one of claims 1 to 6, characterized in that the liquid phase chemical treatment comprises a step of contacting the MgF_2 temporary protective layer with a sodium hypochlorite aqueous solution.

10. A method according to claim 8 or 9, characterized in that the aqueous solution temperature ranges from 14 to 40°C.

11. A method according to claim 10, characterized in that the aqueous solution temperature ranges from 14 to 20°C.

12. A method according to claim 8, characterized in that the soda molar concentration of the aqueous solution ranges from 0.01 to 0.1 mol/liter.

13. A method according to claim 9, characterized in that the chlorometric degree of the sodium hypochlorite aqueous solution ranges from 0.1 to 5.

14. A method according to any one of claims 7 to 13, characterized in that the contact step of the MgF_2 temporary layer with non deionised non distilled water or with a soda or a sodium hypochlorite aqueous solution is performed for a period of time at least equal to 10 seconds, preferably in the order of 15 seconds.

15. A method according to any one of claims 7 to 14, characterized in that the liquid phase chemical treatment subsequently comprises a rinsing step with water, preferably distilled or deionized water and a drying step.

16. A method according to any of claims 1 to 6, characterized in that the metallic oxide is selected amongst magnesium oxide, calcium oxide, praseodymium oxide, cerium oxide or a mixture of two or more of such oxides.

17. A method according to any one of claims 1 to 6, characterized in that the metallic hydroxide is the magnesium hydroxide.

18. A method according to claim 16, characterized in that the MgO deposit comprises the following steps:

- vacuum evaporation of MgO on an electrostatic film,
- deposit of the electrostatic film onto the lens side coated with the MgF₂ temporary protective layer,
- removal of the electrostatic film, MgO remaining on MgF₂.

19. A method according to claim 16, characterized in that the MgO deposit is performed through MgO vacuum evaporation, the shaped MgO layer having a thickness ranging from 1 to 5 nm.

20. A method according to any one of preceding claims, characterized in that both main sides comprise an external layer coated with a MgF₂ temporary protective layer.

21. An ophthalmic lens comprising a hydrophobic and/or oilophobic coating layer, a MgF₂ temporary protective layer, deposited on said hydrophobic and/or oilophobic coating, characterized in that a layer of at least one non fluorinated metallic oxide and/or at least one non fluorinated metallic hydroxide is deposited on the MgF₂ protective layer.

22. An ophthalmic lens according to claim 20, characterized in that the metallic oxide is selected amongst calcium oxide, praseodymium oxide, cerium oxide or a mixture of two or more of such oxides.

23. An ophthalmic lens according to claim 21 or 22, characterized in that the non fluorinated metallic hydroxide is magnesium hydroxide.

24. An ophthalmic lens according to any one of claims 21 to 23, characterized in that the hydrophobic and/or oilophobic coating layer has a thickness lower than 30 nm, preferably ranging from 1 to 20 nm, and more preferably from 1 to 10 nm.

25. An ophthalmic lens according to any one of claims 21 to 24, characterized in that the external layer is deposited on a non reflecting coating, preferably multi-layered.

26. An ophthalmic lens according to any one of claims 21 to 25, characterized in that it comprises an electrostatic film on the non fluorinated metallic oxide and/or non fluorinated metallic hydroxide layer.

27. An ophthalmic lens according to any one of claims 21 to 26, characterized in that the metallic oxide is MgO.